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Oh et al.

(54) MICROFLUIDIC MAGNETOPHORETIC DEVICE AND METHODS FOR USIG THE SAME

(75) Inventors: **Sang-Hyun Oh**, Minneapolis, MN (US); **Amarendra Kumar Singh**, Jersey City, NJ (US); **Yanting Zhang**, Goleta, CA (US); **Dharmakirthi Nawarathna**, Tustin, CA (US); **Unyoung Kim**, Goleta, CA (US); **Patrick Sean Daugherty**, Santa Barbara, CA (US); **Hyongsok Soh**, Santa Barbara, CA (US); **Brian Scott Ferguson**, Goleta, CA (US)

Correspondence Address:
BOZICEVIC, FIELD & FRANCIS LLP
1900 UNIVERSITY AVENUE, SUITE 200
EAST PALO ALTO, CA 94303

(73) Assignee: **The Regents of the University of California**

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(57) **ABSTRACT**

A microfluidic device may employ one or more sorting stations for separating target species from other species in a sample. The separation is driven by magnetophoresis. A sorting station generally includes separate buffer and sample streams. A magnetic field gradient applied to the sorting station deflects the flow path of magnetic particles (which selectively label the target species) from a sample stream into a buffer stream. The buffer stream leaving the sorting station is used to detect or further process purified target species labeled with the magnetic particles.